

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director



DRAFT XX, 2019

Mr. Greg Thompson
General Manager
Valley Proteins, Inc. – Gastonia Division
5533 South York Road
Gastonia, NC 28052

Dear Mr. Thompson:

SUBJECT: Air Quality Permit No. 03590T35
Facility ID: 3600026
Valley Proteins, Inc. dba Carolina By-Products - Gastonia
Gastonia, North Carolina
Gaston County
Fee Class: Title V
PSD Status: Minor

In accordance with your completed Air Quality Permit Application for a renewal of a Title V permit received on May 15, 2015, we are forwarding herewith Air Quality Permit No. 03590T35 to Valley Proteins, Inc. – Gastonia Division, 5533 South York Road, Gastonia, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from



North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

the Office of Administrative Hearings. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

The PSD minor source baseline date is triggered for Gaston County for the emissions of PM10, SO2 and NOx. There is no increment consumed or generated by this permit action.

This Air Quality Permit shall be effective from DRAFT until DRAFT, 2024, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Ms. Jenny Sheppard, at (919) 707-8727 or Jenny.Sheppard@ncdenr.gov.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4
Mooresville Regional Office
Connie Horne (cover letter only)
Central Files

ATTACHMENT 1 to cover letter to Air Quality Permit No. 03590T35

Insignificant Activities pursuant to 15 NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
IES-11	Chlorine Delivery System
IES-Storage	Storage silos
IES-12 and IES-13	Two No. 6 fuel oil tanks (15,000 gallon capacity, each)
IES-16	One truck diesel fuel tank (30,000 gallon capacity)
IES-14	One No. 2 fuel oil tank (18,000 gallon capacity)
IES-17	Dissolved air flotation system
IES-Load	Load-out area
IHS	HIVAC System with integral cartridge filter to vacuum up the protein dust

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit".
3. For additional information regarding the applicability of GACT see the DAQ page titled "The Regulatory Guide for Insignificant Activities/Permits Exempt Activities". The link to this site is as follows:
<http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

ATTACHMENT 2 to cover letter to Permit No. 03590T35

The following table provides a summary of changes made to existing air permit:

Page(s)	Section	Description of Change(s)
All	All	Changed Facility name to Valley Proteins, Inc – Gastonia Division Update dates and permit revision number. adding 0 to 2D and 2Q
Insignificant Activities	Attachment	Added HIVAC System with integral cartridge filter to vacuum up the protein dust (ID No. IHS)
3 thru 6	1	Added reference to GACT JJJJJ to Boilers ES-1, ES-2, ES-3 and ES-15. Modified control device systems to allow vapor to be routed to the air cooled condensers for ES-9 and ES-9a
7 thru 10	2.1 A	Added GACT JJJJJ to Regulation table Updated 02D .0503, 02D .0516, and 02D .0521 to newer format (adding 0 to 2D and 2Q, removing [15A NCAC 2D .05XX] for all paragraph a. Updated monitoring and reporting requirements for 02D .0521. Updated reporting for 02D .0524.
11 thru 16	2.1 B	Added GACT JJJJJ to Regulation table Updated 02D .0503, 02D .0516, and 02D .0521 to newer format (adding 0 to 2D, removing [15A NCAC 2D .05XX] for all paragraph a. Updated testing requirements for 02D .0516, added the no monitoring required from the firing of natural gas, No. 2 fuel oil, approved waste oil or saleable fat (paragraph (c)). Updated recordkeeping and reporting requirements to current language. Updated monitoring and reporting requirements for 02D .0521. Updated reporting for 02D .0524. Updated reporting for 02D .1407
16 thru 19	2.1 C	Updated 02D .0515, 02D .0521, and 02D .0539 to newer format (adding 0 to 2D, removing [15A NCAC 2D .05XX] for all paragraph a. Updated testing requirements for 02D .0515. Updated recordkeeping and reporting requirements to current language. Updated testing, monitoring and reporting requirements for 02D .0521.
19 thru 21	2.1 D	Updated 02D .0515, 02D .0521, and 02D .0539 to newer format (adding 0 to 2D, removing [15A NCAC 2D .05XX] for all paragraph a. Updated testing requirements for 02D .0515. Updated recordkeeping and reporting requirements to current language. Updated testing, monitoring, recordkeeping, and reporting requirements for 02D .0521.
22 thru 25	2.2 A	Updated testing and reporting for 02Q .0317 of 02D .0530 (SO ₂ and CO) 503, 02D .01111, added GACT JJJJJ language for 4 boilers.
26 thru 27	2.2 B	Added “0” to 2D, corrected paragraph ordering.
27 thru 30	2.2 C	Updated condenser descriptions in paragraph l.
30 thru 38	3	Updated General Conditions (v5.3 08/21/18)



State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03590T35	03590T34	DRAFT XX, 2019	DRAFT XX, 2024

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: Valley Proteins, Inc. – Gastonia Division
Facility ID: 3600026

Facility Site Location: 5533 South York Road
City, County, State, Zip: Gastonia, Gaston County, North Carolina 28052

Mailing Address: 5533 South York Road
City, State, Zip: Gastonia, Gaston County, North Carolina 28052

Application Number: 3600026.15C and 3600026.16B
Complete Application Date: May 15, 2015 and December 16, 2016

Primary SIC Code: 2077
Division of Air Quality, Mooresville Regional Office
Regional Office Address: 610 E. Center Ave., Suite 301
Mooresville, North Carolina 28115

Permit issued this the XXth of DRAFT, 2019

William D. Willets, P.E., Chief, Permitting Section
By Authority of the Environmental Management Commission

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ATTACHMENT

List of Acronyms

SECTION 1- PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
	ES-1 NSPS Dc RACT GACT JJJJJ	One natural gas/No. 2 fuel oil/saleable fat oil-fired boiler (49.6 million Btu per hour heat input) <i>Note: ES-1 also functions as a thermal oxidizer for process emissions.</i>	N/A	N/A
	ES-2 RACT GACT JJJJJ	One natural gas/ No. 2 fuel oil/No. 4 fuel oil/No. 5 fuel oil/No. 6 fuel oil/approved equivalent waste oil/saleable fat oil-fired boiler (49.6 million Btu per hour heat input) <i>Note: ES-2 also functions as a thermal oxidizer for process emissions.</i>	N/A	N/A
	ES-3 NSPS Dc RACT GACT JJJJJ	One natural gas/No. 2 fuel oil/No. 6 fuel oil/saleable fat oil-fired boiler (29.5 million Btu per hour heat input) <i>Note: ES-3 also functions as a thermal oxidizer for process emissions.</i>	N/A	N/A
	ES-4	Meat material process	<p>(1st control option) CD-4f CD-4c CD-4d CD-4e</p> <p>CD-10a</p> <p>CD-10c</p> <p>(2nd control option) CD-4f CD-4c CD-4d CD-4e</p> <p>CD-10a</p> <p>CD-9d</p> <p>(3rd control option)</p>	<p>The flow from ES-4 is through either of the 4 control devices below: Shell and Tube Condenser, OR Air Condenser, OR Air Condenser, OR Air Condenser.</p> <p>The exhaust from any of the above 4 control devices is then controlled in series by: One venturi scrubber (30 gallons per minute design, 10 gallons per minute minimum liquid injection rate), and One packed bed scrubber (276 gallons per minute liquid injection rate)</p> <p>The flow from ES-4 is through either of the 4 control devices below: Shell and Tube Condenser, OR Air Condenser, OR Air Condenser, OR Air Condenser.</p> <p>The exhaust from any of the above 4 control devices is then controlled in series by: One venturi scrubber (30 gallons per minute design, 10 gallons per minute minimum liquid injection rate), and One biofilter (13,200 square feet of surface area)</p> <p>The flow from ES-4 is through either of the 4 control devices below:</p>

	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
			CD-4f CD-4c CD-4d CD-4e CD-10a CD-3a ES-1 ES-2 ES-3 ES-15	Shell and Tube Condenser, OR Air Condenser, OR Air Condenser, OR Air Condenser. The exhaust from any of the above 4 control devices is then controlled in series by: One venturi scrubber (30 gallons per minute design, 10 gallons per minute minimum liquid injection rate); Mist Eliminator The exhaust from the mist eliminator is controlled by either of the thermal oxidizers: (49.6 million Btu per hour heat input), OR (49.6 million Btu per hour heat input), OR (29.5 million Btu per hour heat input), OR (41.8 million Btu per hour heat input)
	ES-5	Blood/grease room	CD-8c CD-11a CD-9d	The emissions are controlled by any of the control device devices listed below: Two-stage scrubber (1,370 gallons per minute liquid injection rate), OR Two-stage scrubber (1,370 gallons per minute liquid injection rate), OR One biofilter (13,200 square feet of surface area)
	ES-6	Press/centrifuge process	(1st control option) CD-10b CD-10c (2nd control option) CD-10b CD-3a ES-1 ES-2 ES-3 ES-15 (3rd control	controlled in series by: One venturi scrubber (90 gallons per minute liquid injection rate) and One packed bed scrubber (276 gallons per minute liquid injection rate) controlled in series by: One venturi scrubber (90 gallons per minute liquid injection rate) Mist Eliminator The exhaust from the mist eliminator is controlled by either of the thermal oxidizers: (49.6 million Btu per hour heat input), OR (49.6 million Btu per hour heat input), OR (29.5 million Btu per hour heat input), OR (41.8 million Btu per hour heat input) controlled in series by:

	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
			option) CD-10b CD-9d	One venturi scrubber (90 gallons per minute liquid injection rate); One biofilter (13,200 square feet of surface area)
	ES-8	Meat room air	CD-8c CD-11a CD-9d	The emissions are controlled by any of the control device devices listed below: Two-stage scrubber (1,370 gallons per minute liquid injection rate), OR Two-stage scrubber (1,370 gallons per minute liquid injection rate), OR One biofilter (13,200 square feet of surface area)
	ES-9 ES-9a	Steam Rotodisc Dryer (25,000 pounds per hour maximum design capacity) Feather Hydrolizer	(1st control option) CD-9e CD-4c CD-4d CD-4e CD-10a CD-10c (2nd control option) CD-9e CD-4c CD-4d CD-4e CD-10a CD-3a ES-1 ES-2 ES-3 ES-15	controlled in series by: Shell and Tube Condenser; or Air Condenser, OR Air Condenser, OR Air Condenser. The exhaust from any of the above 4 control devices is then controlled in series by: One venturi scrubber (30 gallons per minute design, 10 gallons per minute minimum liquid injection rate); One packed bed scrubber (276 gallons per minute liquid injection rate); controlled in series by: Shell and Tube Condenser; Air Condenser, OR Air Condenser, OR Air Condenser. The exhaust from any of the above 4 control devices is then controlled in series by: One venturi scrubber (30 gallons per minute design, 10 gallons per minute minimum liquid injection rate); Mist Eliminator The exhaust from the mist eliminator is controlled by either of the thermal oxidizers: (49.6 million Btu per hour heat input), OR (49.6 million Btu per hour heat input), OR (29.5 million Btu per hour heat input), OR (41.8 million Btu per hour heat input)

	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
			(3rd control option) CD-9e CD-4c CD-4d CD-4e CD-10a CD-9d	controlled in series by: Shell and Tube Condenser; Air Condenser, OR Air Condenser, OR Air Condenser. The exhaust from any of the above 4 control devices is then controlled in series by: One venturi scrubber (30 gallons per minute design, 10 gallons per minute minimum liquid injection rate); One biofilter (13,200 square feet of surface area)
	ES-9f	Feather room air	CD-8c CD-11a CD-9d	The emissions are controlled by any of the control device devices listed below: Two-stage scrubber (1,370 gallons per minute liquid injection rate), OR Two-stage scrubber (1,370 gallons per minute liquid injection rate), OR One biofilter (13,200 square feet of surface area)
	ES-15 RACT GA CT JJJJJ	One Natural gas/No. 2 fuel oil /No. 4 fuel oil/No. 6 fuel oil/ approved equivalent waste oil/saleable fat oil-fired boiler (41.8 million Btu per hour heat input) <i>Note: ES-15 also functions as a thermal oxidizer for process emissions.</i>	N/A	N/A
	ES-16 RACT NSPS Dc	<u>Temporary Backup Boiler</u> One Natural gas/No. 2 fuel oil /No. 4 fuel oil/No. 5 fuel oil/No. 6 fuel oil/ approved equivalent waste oil /saleable fat oil-fired boiler (<30 million Btu per hour heat input)	N/A	N/A

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 Emission Source(s) and Control Device(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. One natural gas/No. 2 fuel oil/saleable fat oil-fired boiler (ID No. ES-1) and One natural gas/No. 2 fuel oil/No. 6 fuel oil/saleable fat oil-fired boiler (ID No. ES-3)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.29 pounds per million Btu heat input	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Sulfur dioxide	Fuel oil firing: 0.5 percent sulfur content fuel oil	15A NCAC 02D .0524 (40 CFR Part 60 Subpart Dc)
Nitrogen Oxides	Annual tune-up requirements of 02D .1407(b)	15A NCAC 02D .1407
Nitrogen Oxides	<i>For boiler ES-1 only</i> ; Avoidance of 02D .1407(c) boiler requirements applicable to boilers greater than 50 million Btu per hour	15A NCAC 02Q .0317 for 02D .1407(c) (Avoidance boiler requirements)
Sulfur dioxide	See Section 2.2 A.1	15A NCAC 02Q .0317 (PSD Avoidance)
Carbon monoxide	See Section 2.2 A.1	15A NCAC 02Q .0317 (PSD Avoidance)
Hazardous Air Pollutants	See Section 2.2 A.2, 40 CFR Part 63 – Subpart JJJJJ NESHAP for Area Sources: Industrial, Commercial, and Institutional Boilers	15A NCAC 02D .1111 (40 CFR Part 63 Subpart JJJJJ)

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas, No. 2 fuel oil, No. 6 fuel oil, and saleable fat oil, that are discharged from these sources into the atmosphere shall not exceed 0.29 pounds per million Btu heat input.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 A. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate matter emissions from the firing of natural gas, No. 2 fuel oil, No. 6 fuel oil or saleable fat oil in these sources (**ID Nos. ES-1 and ES-3**).

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from this source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas, No. 2 fuel oil, or saleable fat oil in these sources (**ID Nos. ES-1 and ES-3**).

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-1 and ES-3**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A. 3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a day the Permittee shall observe the emission points of these sources (**ID Nos. ES-1 and ES-3**) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.3.a (or b) above.The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required daily observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 002Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 A.3.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS for 40 CFR 60 SUBPART Dc

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524, "New Source Performance Standards (NSPS) as promulgated in 40 CFR 60, Subpart Dc, including Subpart A "General Provisions."

Emission Limitations [15A NCAC 02D .0524]

- b. The maximum sulfur content of any fuel oil received and fired in these boilers (**ID Nos. ES-1 and ES-3**) shall not exceed 0.5 percent by weight. These fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c(d), 40 CFR 60.42c(i)]

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.4.b, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f)]

- d. To ensure compliance with the fuel sulfur limit in Section 2.1 A.4.b, above, the Permittee shall retain a copy of the fuel supplier certification for any fuel oil fired in these boilers (**ID Nos. ES-1 and ES-3**). The fuel supplier certification shall include the following information:
 - i. The name of the oil supplier;
 - ii. The sulfur content of the oil (in % by weight); and
 - iii. A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the sulfur content of the oil exceeds the limit provided in Section 2.1 A.4.b, above, or if fuel supplier certifications are not retained as described above. [40 CFR 60.46c(e), 40 CFR 60.48c(f)(1)]

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. In addition to any other recordkeeping required by 40 CFR §60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain records of the amounts of each fuel fired at these boilers (**ID Nos. ES-1 and ES-3**) during each day. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained. [40 CFR 60.48c(g)(2)]
- f. The Permittee shall maintain records of fuel oil supplier certifications as specified in Section 2.1 A.4.d, above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if records of fuel sulfur content monitoring are not maintained. [40 CFR 60.48c(e)(11), (f)(1)]

Reporting [15A NCAC 02Q .0508(f)]

- g. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities in Sections 2.1 A.4.d through f above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The summary report shall include the following information:
 - i. Fuel supplier certification(s) for distillate fuel oil, as provided in Section 2.1 A.4.f of this permit.
 - ii. A certified statement signed by the Permittee that the records of fuel supplier certification(s) submitted represent all of the fuel fired at these boilers (**ID Nos. ES-1 and ES-3**) during the semiannual reporting period; and
 - iii. All instances of deviations from the requirements of this permit must be clearly identified.

5. 15A NCAC 02D .1407 BOILERS AND INDIRECT-FIRED PROCESS HEATERS

- a. Facilities with boilers with maximum heat input rate of less than or equal to 50 million Btu per hour shall comply with the annual tune-up requirements of 02D .1414. The Permittee shall maintain records of all tune-ups performed for each source according to 02D .1404.
 - i. Final compliance shall be achieved no later than **April 1, 2009**. [15A NCAC 02D .1403(c)(2)(F)]

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.5.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407.

Monitoring [15A NCAC 02Q .0508(f)]

- c. To ensure compliance the Permittee shall conduct tune-ups on the boilers at least annually and according to the manufacturer's recommendations:

- i. inspect each burner and clean or replace any component of the burner as required;
- ii. inspect the flame pattern and make any adjustments to the burner, or burners, necessary to optimize the flame pattern to minimize total emissions of NO_x and carbon monoxide;
- iii. inspect the combustion control system to ensure proper operation and correct calibration of components that control the air to fuel ratio and adjust components to meet the manufacturer's established operating parameters; and
- iv. inspect any other component of the boilers and make adjustments or repairs as necessary to improve combustion efficiency. The Permittee shall perform the tune-up according to a unit specific protocol approved by the Director. The Director (or designee) shall approve the protocol if it meets the requirements of this Rule. The protocol shall be submitted to the Regional Office for approval.

If tune-ups and inspections are not conducted as per Section 2.1 A.5.c.i. through iv. above, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .1407.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The owner or operator shall maintain records of tune-ups performed to comply with Rule .1404. The following information shall be included for each source:
 - i. identification of the source;
 - ii. the date and time the tune-up started and ended;
 - iii. the person responsible for performing the tune-up; and
 - iv. for boilers the checklist for inspection of the burner, flame pattern, combustion control system, and all other components of the boiler identified in the protocol, noting any repairs or replacements made;
 - v. any stack gas analyses performed after the completion of all adjustments to show that the operating parameters of the boiler, have been optimized with respect to fuel consumption and output; at a minimum these parameters shall be within the range established by the equipment manufacturer to ensure that the emission limitation for nitrogen oxides has not been exceeded; and
 - vi. any other information requested by the Director (or designee) to show that the boiler is being operated and maintained in a manner to minimize the emissions of nitrogen oxides.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407 if these records are not maintained.

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each annual tune-up and inspection along with any corrective actions taken; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 A.1.c through e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**6. 15A NCAC 02Q .0317 AVOIDANCE CONDITIONS
for 02D .1407(b) BOILERS AND INDIRECT-FIRED PROCESS HEATERS**

- a. The Permittee has requested that terms and conditions be placed in that facility's permit to avoid the applicability of 15A NCAC 02D .1400, Nitrogen Oxides specifically 02D .1407(b).
- b. The Permittee has demonstrated that the boiler ID ES-1 heat input rate is less than 50 million Btu per hour as in the May 2, 2008 submittal under RACT application 3600026.08A.
- c. The Director may require the monitoring, recordkeeping, and reporting necessary to ensure compliance with the terms and conditions placed in the permit to remove the applicability of a rule.

Testing [15A NCAC 02Q .0508(f)]

- d. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.6.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407.

B. One natural gas/ No. 2 fuel oil/No. 4 fuel oil/No. 5 fuel oil/No. 6 fuel oil/approved equivalent waste oil/saleable fat oil-fired boiler (ID No. ES-2);

One natural gas/ No. 2 fuel oil/No. 4 fuel oil/No. 6 fuel oil/approved equivalent waste oil/saleable fat oil-fired boiler (ID No. ES-15); and

One natural gas/ No. 2 fuel oil/No. 4 fuel oil/No. 5 fuel oil/No. 6 fuel oil/approved equivalent waste oil/saleable fat oil-fired temporary back-up boiler (ID No. ES-16)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.29 pounds per million Btu heat input for (ID Nos. ES-2 and ES-15) 0.28 pounds per million Btu heat input for (ID No. ES-16)	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Sulfur dioxide	Sulfur in fuel limit of 0.5 weight percent sulfur (ID No. ES-16 - as applicable)	15A NCAC 02D .0524 (40 CFR Part 60 Subpart Dc)
Nitrogen Oxides	Annual tune-up requirements as required by 02D .0414	15A NCAC 02D .1407
Nitrogen Oxides	For boiler ES-2 only; Avoidance of 02D .1407(b) boiler requirements applicable to boilers greater than 50 million Btu per hour	15A NCAC 02Q .0317 for 02D .1407(b) (Avoidance boiler requirements)
Nitrogen Oxides	For boiler ES-16 only; less than 40 tons per year nitrogen oxides	15A NCAC 02Q .0317 for 02D .0531 (NAA NSR Avoidance)
Sulfur dioxide	See Section 2.2 A	15A NCAC 02Q .0317 (PSD Avoidance)
Carbon monoxide	See Section 2.2 A	15A NCAC 02Q .0317 (PSD Avoidance)
Toxic air pollutants	See Section 2.2 B.1 - State-enforceable only	15A NCAC 02D .1100
Hazardous Air Pollutants	See Section 2.2 A.2, 40 CFR Part 63 – Subpart JJJJJ NESHAP for Area Sources: Industrial, Commercial, and Institutional Boilers (ID Nos. ES-2 and ES-15)	15A NCAC 02D .1111 (40 CFR 63 Subpart JJJJJ)

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from combustion of natural gas, No. 2 fuel oil, No. 4 fuel oil, No. 5 fuel oil, No. 6 fuel oil, approved equivalent waste oil, and saleable fat oil from these boilers (ID Nos. ES-2, ES-15 and ES-16) into the atmosphere shall not exceed 0.29 pounds per million Btu heat input for boilers (ID Nos. ES-2 and ES-15) and 0.28 pounds per million Btu heat input for boiler (ID No. ES-16).

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate matter emissions from the firing of natural gas, No. 2 fuel oil, No. 4 fuel oil, No. 5 fuel oil, No. 6 fuel oil, approved equivalent waste oil or saleable fat oil in these boilers (**ID Nos. ES-2, ES-15, and ES-16**).

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these boilers (**ID Nos. ES-2, ES-15, and ES-16**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas, No. 2 Fuel oil, approved equivalent waste oil or saleable fat oil in these boilers (**ID Nos. ES-2, ES-15, and ES-16**).
- d. The maximum sulfur content of any No. 4/5/6 fuel oil received and fired in these boilers (**ID Nos. ES-2, ES-15, and ES-16**) shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the fuel oil exceeds this limit.
- e. To ensure compliance, the Permittee shall monitor the sulfur content of any No. 4/5/6 fuel oil by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
 - i. the name of the fuel oil supplier;
 - ii. the maximum sulfur content of the fuel oil received during the quarter;
 - iii. the method used to determine the maximum sulfur content of the fuel oil; and
 - iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 4/5/6 fuel oil fired during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the oil is not monitored and recorded.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 B.2.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these boilers (**ID Nos. ES-2, ES-15, and ES-16**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a day the Permittee shall observe the emission points of these sources (**ID Nos. ES-2, ES-15, and ES-16**) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or

- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.3.a above.
The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required daily observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 B.3.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS 40 CFR 60 SUBPART Dc for Temporary Back-up Boiler (ID No. ES-16) if constructed, reconstructed, or modified after June 9, 1989

The Permittee is required to submit a written notification of the construction, reconstruction, or modification date (as defined under NSPS) of any temporary back-up boiler (**ID No. ES-16**) within 15 days after installation to the Division of Air Quality, Regional Supervisor.

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524, "New Source Performance Standards (NSPS) as promulgated in 40 CFR 60, Subpart Dc, including Subpart A "General Provisions."

Emission Limitations [15A NCAC 02D .0524]

- b. The maximum sulfur content of any fuel oil received and burned in the boiler (**ID No. ES-16**) shall not exceed 0.5 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if sulfur content exceeds the limit as described above.

Monitoring [15A NCAC 02Q .0508(f)]

- c. Sulfur dioxide emissions shall be monitored as follows:
 - i. Distillate Oil - Fuel supplier certification shall be used to demonstrate compliance as described under 40 CFR 60.46c(e).
 - ii. Residual Oil - The Permittee shall sample and analyze the oil in the fuel tank after each new shipment of oil is received as described under 40 CFR 60.46c(d)(2) to demonstrate compliance. Results of the fuel analysis taken after each new shipment of oil received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. The 30-day rolling average sulfur content shall be 0.5 percent by weight or less.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if sulfur dioxide emissions are not monitored as described above.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. In addition to any other recordkeeping required by 40 CFR 60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain records of the amounts of each fuel fired during each day.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to NOTIFY the DAQ in writing of the following:

- i. a summary report , acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate or residual fuel oil fired, by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June as follows:
 - (A) Distillate Oil - Fuel supplier certification shall include the following information:
 - (1) the name of the oil supplier;
 - (2) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and
 - (3) a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the semi annual period.
 - (B) Residual Oil - The report shall include the results of the fuel oil sampling and analysis as required in Section 2.1 B. c. ii.

All instances of deviations from the requirements of this permit must be clearly identified.

5. 15A NCAC 02D .1407 BOILERS AND INDIRECT PROCESS HEATERS

- a. Facilities with boilers with maximum heat input rate of less than or equal to 50 million Btu per hour shall comply with the annual tune-up requirements of 02D .1414. The Permittee shall maintain records of all tune-ups performed for each source according to 02D .1404.
 - i. Final compliance shall be achieved no later than **April 1, 2009** [15A NCAC 02D .1403(c)(2)(F)]

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.5.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407.

Monitoring [15A NCAC 02Q .0508(f)]

- c. To ensure compliance the Permittee shall conduct tune-ups on the boilers at least annually and according to the manufacturer's recommendations:
 - i. inspect each burner and clean or replace any component of the burner as required;
 - ii. inspect the flame pattern and make any adjustments to the burner, or burners, necessary to optimize the flame pattern to minimize total emissions of NOx and carbon monoxide;
 - iii. inspect the combustion control system to ensure proper operation and correct calibration of components that control the air to fuel ratio and adjust components to meet the manufacturer's established operating parameters; and
 - iv. inspect any other component of the boilers and make adjustments or repairs as necessary to improve combustion efficiency. The Permittee shall perform the tune-up according to a unit specific protocol approved by the Director. The Director (or designee) shall approve the protocol if it meets the requirements of this Rule. The protocol shall be submitted to the Regional Office for approval.

If tune-ups and inspections are not conducted as per Section 2.1 B.5.c.i. through iv. above, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .1407.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The owner or operator shall maintain records of tune-ups performed to comply with according to Rule .1404. The following information shall be included for each source:
 - i. identification of the source;
 - ii. the date and time the tune-up started and ended;
 - iii. the person responsible for performing the tune-up; and
 - iv. for boilers the checklist for inspection of the burner, flame pattern, combustion control system, and all other components of the boiler identified in the protocol, noting any repairs or replacements made;
 - v. any stack gas analyses performed after the completion of all adjustments to show that the operating parameters of the boiler, have been optimized with respect to fuel consumption and output; at a minimum these parameters shall be within the range established by the equipment manufacturer to ensure that the emission limitation for nitrogen oxides has not been exceeded; and
 - vi. any other information requested by the Director (or designee) to show that the boiler is being operated and maintained in a manner to minimize the emissions of nitrogen oxides.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407 if these records are not maintained.
- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made

available to an authorized representative upon request. The logbook shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each annual tune-up and inspection along with any corrective actions taken; and
- iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 B.5.c through e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

6. 15A NCAC 02Q .0317 AVOIDANCE CONDITIONS

for 02D .1407(b) BOILERS AND INDIRECT-FIRED PROCESS HEATERS

- a. The Permittee has requested that terms and conditions be placed in that facility's permit to avoid the applicability of 15A NCAC 02D .1400, Nitrogen Oxides specifically 02D .1407(b).
- b. The Permittee has demonstrated that the boiler (**ID No. ES-2**) heat input rate is less than 50 million Btu per hour as in the May 1, 2008 submittal under RACT application 3600026.08A.
- c. The Director may require the monitoring, recordkeeping, and reporting necessary to ensure compliance with the terms and conditions placed in the permit to remove the applicability of a rule.

Testing [15A NCAC 02Q .0508(f)]

- d. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.6.a, b, and c, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407.

7. 15A NCAC 02Q .0317: AVOIDANCE CONDITION

for 15A NCAC 02D .0531 SOURCES IN NONATTAINMENT AREA

- a. To comply with this permit and avoid applicability of 15A NCAC 02D .0531 Sources in Nonattainment Area, as requested by the Permittee, rolling total nitrogen oxide emissions from the temporary back-up boiler (**ID No. ES-16**) shall be less than 40 tons per consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 7. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0531.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The Permittee shall monitor and record the quantity of natural gas, No. 2/No. 4/No. 5/No. 6 fuel oil, and saleable fat fired in the affected boiler (**ID No. ES-16**) during the previous calendar month. Records of monthly fuel combustion shall be recorded in a log (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0531 if monthly fuel combustion is not monitored and recorded as provided above.
- d. Each month the Permittee shall calculate and record NO_x emissions from the temporary back-up boiler (**ID No. ES-16**) for the previous calendar month, according to the following equation:

$$E_{NOx} = 100 * V_{ng} + 55 * V_{FO6} + 20 * (V_{FO4} + V_{FO2}) + 36.58 * V_{fat}$$

Where;

- V_{ng} = Total volume of natural gas fired in the affected boilers during the previous calendar month (in MMscf/mo);
- V_{FO6} = Volume of No. 6 fuel oil fired in the affected boilers during the previous calendar month (in 10³ gal/mo);
- V_{FO5} = Volume of No. 5 fuel oil fired in the affected boilers during the previous calendar month (in 10³ gal/mo);
- V_{FO2} = Total volume of recycled No. 4 equivalent fuel oil fired in the affected boilers during the previous calendar month (in 10³ gal/mo);

V_{FO2} = Total volume of No. 2 fuel oil fired in the affected boilers during the previous calendar month (in 10^3 gal/mo); and,

V_{fat} = Total volume of saleable fat fired in the affected boilers during the previous calendar month (in 10^3 gal/mo).

Records of the monthly calculations listed above shall be made in a log (written or electronic format) and retained on file. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0531 if the records of the monthly calculations, as provided above, are not created and retained.

- g. The Permittee shall calculate the 12-month rolling NOx emissions for temporary back-up boiler (**ID No. ES-16**) once per month for the previous 12 calendar months. Records of the 12-month rolling calculations shall be made in a log (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0531 if records are not created and retained or if the 12-month rolling emissions exceed any limit provided in Section 2.1 B.7 of this Permit.

Reporting [15A NCAC 02Q .0508(f)]

- h. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- Monthly NOx emissions from temporary back-up boiler (**ID No. ES-16**) for the previous 17 months; and,
 - 12-month rolling NOx emissions for each of the six 12-month periods over the previous 17 month period.

C. Meat material process (ID No. ES-4) and feather drying process (ID No. ES-9) and associated venturi scrubber (ID No. CD-10a) with thermal oxidizers (ID Nos. ES-1, ES-2, ES-3 and ES-15) or packed bed scrubber (ID No. CD-10c) and/or biofilter (ID No. CD-9d) as back-up

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For $P < 30$ tons per hour: $E = 4.10P^{0.67}$ For $P > 30$ tons per hour: $E = 55.0P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Odorous emissions	See Section 2.2 C - State-enforceable only	15A NCAC 02D .0539

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-4 and ES-9**) shall not exceed an allowable emission rate as calculated by the following equation:

For process weights up to 30 tons per hour:

$$E = 4.10 \times P^{0.67} \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

For process weights greater than 30 tons per hour:

$$E = 55 \times P^{0.11} - 40 \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these emission sources (**ID Nos. ES-4 and ES-9**) shall be controlled by the venturi scrubber, packed bed scrubber, and thermal oxidizers (**ID Nos. CD-10a, CD-10c, ES-1, ES-2, ES-3, and ES-15**) as described above. To ensure that optimum control efficiency is maintained, the Permittee shall perform monthly inspections on the scrubbers and semi-annual inspections on the thermal oxidizers and perform maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
 - i. an inspection of each control device's structural integrity;
 - ii. visual inspection of the system ductwork, and material collection unit for leaks,
 - iii. an inspection of spray nozzles for the scrubbers,
 - iv. an inspection of the primary heat exchangers; and
 - v. visual inspection of the inlet/outlet valves for structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the venturi scrubber, packed bed scrubber, thermal oxidizers and associated ductwork are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of actions recorded;
 - ii. the results of each respective monthly/semi-annual inspection;
 - iii. the results of any maintenance performed on the control devices; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.
- e. The Permittee shall monitor and record in a logbook, at least once per calendar week, the following:
 - i. the nozzle pressure for the venturi scrubber (**ID No. CD-10a**) which shall be a minimum of 5 psi,
 - ii. the liquid injection flow rate to the venturi scrubber (**ID No. CD-10a**) which shall be a minimum of 10 gallons per minute, and
 - iii. the exit temperature of the venturi scrubber (**ID No. CD-10a**) which shall be a maximum of 120 degrees F at the inlet to the biofilter.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these operational parameters are not recorded and maintained.
- f. Each boiler that is to be used as a thermal oxidizer (**ID Nos. ES-1, ES-2, ES-3 and ES-15**) shall be equipped with a device to continuously measure and record the amount of fuel flow into the boiler. The Permittee shall record daily the date, time, fuel flow rate into each applicable boiler, while these boilers are being used as a control device.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.
- g. The Permittee shall monitor operation of the boilers as thermal oxidizers (**ID Nos. ES-1, ES-2, ES-3 and ES-15**) via an automated damper system that directs the odors to the boilers while in operation. The automated damper system shall have an indicator of baffle/damper position depending on firing rate that shall be recorded. In addition, the dampers shall be checked and logged weekly for proper operation.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.
- h. The Permittee shall monitor operation of the packed bed scrubber (**ID No. CD-10c**) as back-up control for the thermal oxidizers above. The Permittee shall record in a log book when the packed bed scrubber is in operation and venting to the atmosphere rather than to the biofilter below. The Permittee shall also follow the monitoring and recordkeeping (including operation and maintenance) requirements for the packed bed scrubber as specified below:

Scrubber (packed bed) Operation and Maintenance Requirements –

- i. Particulate matter emissions from the meat material process (**ID No. ES-4**) and the feather drying process (**ID No. ES-9**) shall be controlled by the packed bed scrubber (**ID No. CD-10c**). The Permittee shall utilize a

ZA300HS and water scrubbing medium or chlorine dioxide or equivalent and water scrubbing medium in the packed bed scrubber (**ID No. CD-10c**) when venting directly to the atmosphere (not to the biofilter (**ID No. CD-9d**)). The Permittee shall also record the method of operation (vent to atmosphere or vent to biofilter) upon change.

To ensure that maximum control efficiency is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. As a minimum, the inspection and maintenance program will include inspection of spray nozzles, packing material, chemical feed system, and the cleaning/calibration of all associated instrumentation. Results of the inspections and any maintenance performed on the scrubber system shall be recorded in a logbook.

- (A) The Permittee shall ensure the proper performance of the packed bed scrubber (**ID No. CD-10c**) by monitoring and recording in a logbook daily when in operation the liquid injection pressure - (minimum of 15 psig).
- (B) The Permittee shall record in a log book when the biofilter (**ID No. CD-9d**) is in operation as back-up control. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the above items are not monitored and the associated records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- i. Upon request from the DAQ, the Permittee shall submit, within 30 days of such request, a report of any maintenance performed on a control device system.
- j. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 C.1.c and h above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-4 and ES-9**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a day the Permittee shall observe the emission points of these sources (**ID Nos. ES-4 and ES-9**) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from this/these source(s) are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.2.a above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required daily observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 C.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. Press/centrifuge process (ID No. ES-6) and associated venturi scrubber (ID No. CD-10b) with thermal oxidizers (ID Nos. ES-1, ES-2, ES-3 and ES-15) or packed bed scrubber (ID No. CD-10c) and/or biofilter (ID No. CD-9d) as back-up

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For P < 30 tons per hour: $E = 4.10P^{0.67}$ For P > 30 tons per hour: $E = 55.0P^{0.11} - 40$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Odorous emissions	See Subsection 2.2 C – State-enforceable only	15A NCAC 02D .0539

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from this source (**ID No. ES-6**) shall not exceed an allowable emission rate as calculated by the following equation:

For process weights up to 30 tons per hour:

$$E = 4.10 \times P^{0.67} \quad \text{Where } E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour}$$

For process weights greater than 30 tons per hour:

$$E = 55 \times P^{0.11} - 40 \quad \text{Where } E = \text{allowable emission rate in pounds per hour} \\ P = \text{process weight in tons per hour}$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from this emission source (**ID No. ES-6**) shall be controlled by the venturi scrubber, packed bed scrubber, and thermal oxidizers (**ID Nos. CD-10b, CD-10c, ES-1, ES-2, ES-3, and ES-15**). To ensure that optimum control efficiency is maintained, the Permittee shall perform monthly inspections on the scrubbers and semi-annual inspections on the thermal oxidizers and perform maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
- an inspection of each control device's structural integrity;
 - visual inspection of the system ductwork, and material collection unit for leaks,
 - an inspection of spray nozzles for the scrubbers,
 - an inspection of the primary heat exchangers; and
 - visual inspection of the inlet/outlet valves for structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the venturi scrubber, packed bed scrubber, thermal oxidizers and associated ductwork are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on site and made available to an authorized representative upon request. The logbook shall record the following:
- the date and time of actions recorded;
 - the results of each respective monthly/semi-annual inspection;
 - the results of any maintenance performed on the control devices; and
 - any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.
- e. The Permittee shall monitor and record in a logbook, at least once per calendar week, the following:
- the pressure drop across the venturi scrubber (**ID No. CD-10b**) which shall be a maximum of 6 inches of water,
 - the liquid injection flow rate to the venturi scrubber (**ID No. CD-10b**) which shall be a minimum of 22 gallons per minute, and
 - the exit temperature of the venturi scrubber (**ID No. CD-10b**) which shall be a maximum of 120 degrees F at the inlet to the biofilter.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these operational parameters are not recorded and maintained.
- f. Each boiler that is to be used as a thermal oxidizer (**ID Nos. ES-1, ES-2, ES-3 and ES-15**) shall be equipped with a device to continuously measure and record the amount of fuel flow into the boiler. The Permittee shall record daily the date, time, fuel flow rate into each applicable boiler, while these boilers are being used as a control device.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.
- g. The Permittee shall monitor operation of the boilers as thermal oxidizers (**ID Nos. ES-1, ES-2, ES-3 and ES-15**) via an automated damper system that directs the odors to the boilers while in operation. The automated damper system shall have an indicator of baffle/damper position depending on firing rate that shall be recorded. In addition, the dampers shall be checked and logged weekly for proper operation.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.
- h. The Permittee shall monitor operation of the packed bed scrubber (**ID No. CD-10c**) as back-up control for the thermal oxidizers above. The Permittee shall record in a log book when the packed bed scrubber is in operation and venting to the atmosphere rather than to the biofilter below.

To ensure that maximum control efficiency is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. As a minimum, the inspection and maintenance program will include inspection of spray nozzles, packing material, chemical feed system, and the cleaning/calibration of all associated instrumentation. Results of the inspections and any maintenance performed on the scrubber system shall be recorded in a logbook.

- The Permittee shall ensure the proper performance of the packed bed scrubber (**ID No. CD-10c**) by monitoring and recording in a logbook daily, liquid injection pressure (minimum of 15 psig) when in operation.

- ii. The Permittee shall record in a log book when the biofilter (**ID No. CD-9d**) is in operation as back-up control. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- i. Upon request from the DAQ, the Permittee shall submit, within 30 days of such request, a report of any maintenance performed on a control device system.
- j. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 D.1.c and h above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-6**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a day the Permittee shall observe the emission points of this source (**ID No. ES-6**) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from this/these source(s) are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.2.a above.The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required daily observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 D.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

- A. One natural gas/ No. 2 fuel oil/No. 4 fuel oil/No. 5 fuel oil/No. 6 fuel oil/approved equivalent waste oil/saleable fat oil-fired boiler (ID No. ES-2);**
One natural gas/No. 2 fuel oil/No. 6 fuel oil/saleable fat oil-fired boiler (ID No. ES-3);
One natural gas/No. 2 fuel oil/No. 4 fuel oil/No. 6 fuel oil/approved equivalent waste oil/saleable fat oil-fired boiler (ID No. ES-15);
One natural gas/No. 2 fuel oil/saleable fat oil-fired boiler (ID No. ES-1); and
One natural gas/ No. 2 fuel oil/No. 4 fuel oil/No. 5 fuel oil/No. 6 fuel oil/approved equivalent waste oil/saleable fat oil-fired temporary back-up boiler (ID No. ES-16)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	less than 250 tons per year	15A NCAC 02Q .0317 (PSD Avoidance)
Carbon monoxide	less than 250 tons per year	15A NCAC 02Q .0317 (PSD Avoidance)
Hazardous Air Pollutants	40 CFR Part 63 – Subpart JJJJJ NESHAP for Area Sources: Industrial, Commercial, and Institutional Boilers	15A NCAC 02D .1111

1. 15A NCAC 02Q. 0317: AVOIDANCE CONDITIONS for 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the boilers (**ID Nos. ES-1, ES-2, ES-3, ES-15, and ES-16**) shall discharge into the atmosphere less than 250 tons of sulfur dioxide or carbon monoxide, per consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.1.a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The use of all fuels in boilers (**ID Nos. ES-1, ES-2, ES-3, ES-15, and ES-16**) shall be limited such that sulfur dioxide and carbon monoxide emissions are less than 250 tons for any consecutive twelve-month period.
- d. The following parameters each month shall be measured and recorded:
- The amount of natural gas used in the boilers in cubic feet.
 - The amount of No. 6 fuel oil used in the boilers in gallons and the percent sulfur in the No. 6 fuel oil.
 - The amount of No. 2 fuel oil used in boiler (**ID Nos. ES-1, ES-2, ES-3, ES-15, and ES-16**) in gallons and the percent sulfur in the No. 2 fuel oil.
 - The amount of No. 4 fuel oil used in boiler (**ID Nos. ES-2, ES-15, and ES-16**) in gallons and the percent sulfur in the No. 4 fuel oil.
 - The amount of No. 5 fuel oil used in boiler (**ID Nos. ES-2 and ES-16**) in gallons and the percent sulfur in the No. 5 fuel oil.
 - The amount of saleable fat oil used in the boilers in gallons.
- e. Each month calculations shall be performed and recorded to determine the actual sulfur dioxide and carbon monoxide emissions. For natural gas, No. 2 fuel oil, No. 4 fuel oil, No. 5 fuel oil, and No. 6 fuel oil, actual emissions shall be based on the most current AP-42 emission factors for these fuels. For saleable fat oil, actual emissions shall be calculated by using the following emission factors:
- 0.017 pounds per million Btu for carbon monoxide; and

- ii. 0.018 pounds per million Btu for sulfur dioxide.

Note: The saleable fat oil emission factors are based on the most recent compliance test results that were performed at the Gastonia and Fayetteville facilities and approved by the Division of Air Quality in 2004.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not kept or if the sulfur dioxide and carbon monoxide emissions exceed the limit in Section 2.2 A.1.a.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities given in Section(s) 2.2 A.1.c through e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. The monthly sulfur dioxide emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
 - ii. The monthly quantities of natural gas and No. 6 fuel oil consumed for the previous 17 months and the average sulfur content for the fuel oil; and
 - iii. The average sulfur content for the fuel oil.

2. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.11193, 63.11194(a)(1), (b), 63.11200(c)]

- a. For these sources (**ID No. ES-1, ES-2, ES-3, and ES-15**), the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" as promulgated in 40 CFR 63, Subpart JJJJJ, "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers", including Subpart A "General Provisions."

Definitions and Nomenclature

- b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 63.11237 shall apply.

General Provisions [40 CFR 63.11235]

- c. The Permittee shall comply with the General Provisions as applicable pursuant to Table 8 of 40 CFR 63 Subpart JJJJJ.

Compliance Dates

- d. The Permittee shall achieve compliance with the initial tune up and energy assessment requirements no later than March 21, 2014. [40 CFR 63.11196(a)(1), (a)(3), 63.11210(c)]

Notification of Compliance Status [40 CFR 63.11225]

- e. The Permittee shall submit a Notification of Compliance Status no later than July 19, 2014.
 - i. The Notification of Compliance Status must be signed by a responsible official and include the following certifications of compliance:
 - (A) "This facility complies with the requirements in 40 CFR 63.11214 (i.e., Section 2.2 A.2.g) to conduct an initial tune-up of the boiler."
 - (B) "This facility has had an energy assessment of the boiler and its energy use systems performed according to Table 2 to this subpart (i.e., Section 2.2 A.2.h) and that the assessment is an accurate depiction of the facility at the time of the assessment or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended."
 - (C) "No secondary materials that are solid waste were combusted in any affected unit."
 - ii. The notification must be also submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13.
 - iii. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.2 A.2.e are not met.

General Compliance Requirements [15A NCAC 02Q .0508(b)]

- f. At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11205(a)] The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Performance Tune-up Requirements [15A NCAC 02Q .0508(b)]

- g. The Permittee shall conduct an initial tune-up of the boiler and subsequent tune-ups biennially.
 - i. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up.
 - ii. The Permittee shall conduct the tune-ups while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.
 - iii. The tune-ups shall be conducted according to the following procedures:
 - (A) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.
 - (B) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
 - (C) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.
 - (D) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
 - (E) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
 - (F) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.
 - iv. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.2 A.2.g are not met.

Energy Assessment Requirements [15A NCAC 02Q .0508(b)]

- h. The Permittee shall conduct a one-time energy assessment performed by a qualified energy assessor. The energy assessment must include the following items, with the extent of the evaluation for items (i) to (iv) appropriate for the on-site technical hours listed in 40 CFR 63.11237:
 - i. A visual inspection of the boiler system,
 - ii. An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,
 - iii. An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
 - iv. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
 - v. A list of major energy conservation measures that are within the facility's control,
 - vi. A list of the energy savings potential of the energy conservation measures identified, and
 - vii. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.[40 CFR 63.11201(b), Table 2]
 - viii. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in section 2.2 A.2.h are not met.

Recordkeeping [15A NCAC 02Q .0508(f)]

- i. The Permittee shall maintain the following records:
 - i. As required in 40 CFR 63.10(b)(2)(xiv), the Permittee shall keep a copy of each notification and report that was submitted to comply with this rule and all documentation supporting any Notification of Compliance Status that was submitted.
 - ii. The Permittee shall maintain on-site and submit, if requested by the Administrator, a report containing the following information:
 - (A) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
 - (B) A description of any corrective actions taken as a part of the tune-up of the boiler.
 - (C) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
 - iii. The Permittee shall keep the following records to document conformance with the applicable requirements:
 - (A) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
 - (B) The Permittee shall keep a copy of each boiler energy assessment report.
 - (C) Records of the occurrence and duration of each malfunction of the boiler or of the associated air pollution control and monitoring equipment.
 - (D) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in **Section 2.2 A.2.f**, including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.
 - (E) For operating units that combust non-hazardous secondary materials (e.g. saleable fat) that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), the Permittee shall keep a record which documents how the secondary material meets each of the legitimacy criteria under 40 CFR 241.3(d)(1). If you combust a fuel (e.g. saleable fat) that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(4), you must keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2 and each of the legitimacy criteria in 40 CFR 241.3(d)(1). If the fuel (e.g., saleable fat) received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), you must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per 40 CFR 241.4, you must keep records documenting that the material is a listed non-waste under 40 CFR 241.4(a).
[40 CFR 63.11225(c), 63.11223(b)(6)]
 - iv. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.2 A.2.i are not met.
- j. The records must be in a form suitable and readily available for expeditious review. The Permittee shall keep each record for 5 years following the date of each recorded action. The Permittee shall keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The Permittee may keep the records off site for the remaining 3 years.
[40 CFR 63.11225(d)] The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Reporting [15A NCAC 2Q .0508(f)]

- k. The reporting requirements of 40 CFR 63.11225(b) shall be met by complying with General Condition P of Section 3 of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these reporting requirements are not met.

- B. One natural gas/ No. 2/No. 4/No. 5/No. 6/approved equivalent waste oil/saleable fat oil-fired boiler (ID No. ES-2);**
One natural gas/ No. 2/No. 4/No. 6/approved equivalent waste oil/saleable fat oil-fired boiler (ID No. ES-15); and
One natural gas/ No. 2/No. 4/No. 5/No. 6/approved equivalent waste oil/saleable fat oil-fired boiler (ID No. ES-16);

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	<u>State-enforceable only</u> The approved equivalent waste oil shall not exceed: arsenic 1 ppm cadmium 2 ppm chromium VI 5 ppm lead 100 ppm total halogens 1000 ppm	15A NCAC 02Q .0317 NC Air Toxics Avoidance

STATE ENFORCEABLE ONLY

15A NCAC 02Q. 0317: AVOIDANCE CONDITIONS for 15A NCAC 02Q .0700: TOXIC AIR POLLUTANT PROCEDURES (for firing of recycled fuels and avoidance of toxics air pollutants regulation)

1. 15A NCAC 02Q. 0317: AVOIDANCE CONDITIONS

for SECTION 15A NCAC 02Q .0700: TOXIC AIR POLLUTANTS PROCEDURES

- Recycled No. 4 fuel oil requirements - In accordance with Rule 02Q .0317, the Permittee is avoiding the applicability of Rule 02Q .0700 by using recycled fuel which is equivalent to their virgin counterpart.
- Specifications - The recycled fuel oil shall be equivalent to unadulterated fossil fuel by meeting the following criteria:

Constituent/Property	Allowable Level
Arsenic	1.0 ppm maximum
Cadmium	2.0 ppm maximum
Chromium	5.0 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	
No. 2	100°F minimum
No. 4	130°F minimum
No. 5	175°F minimum
No. 6	175°F minimum
Sulfur	
No. 2	0.5% maximum (by weight)
No. 4	2.0% maximum (by weight)
No. 5	2.0% maximum (by weight)
No. 6	2.0% maximum (by weight)
Ash	1.0% maximum

Testing [15A NCAC 02D .0605]

- The DAQ reserves the right to require additional testing and/or monitoring of the recycled fuel oil(s) on an annual basis or without notice.

Monitoring/Recordkeeping [15A NCAC 02D .0605]

- The Permittee is responsible for ensuring that the recycled fuel oil, as received at the site, meet the approved criteria for unadulterated fuel. The Permittee is held responsible for any discrepancies discovered by DAQ as a result of any sampling and analysis of the fuel oil.

- e. The Permittee shall maintain at the facility for a minimum of three years, and shall make available to representatives of the DAQ upon request, accurate records of the following:
 - i. The actual amount of recycled fuel oil delivered to, and combusted at the facility on an annual basis.
 - ii. Each load of recycled fuel oil received shall include the following:
 - (A) A delivery manifest document clearly showing the shipment content and amount, its place and date of loading, and place and date of destination;
 - (B) A batch specific analytical report that contains an analysis for all constituents/properties listed above. Analytical results of the recycled oil shipment shall be no more than one year old when received;
 - (C) Batch signature information consisting of the following: a batch number, tank identification with batch volume of recycled oil, date and time the batch completed treatment, and volume(s) delivered; and
 - (D) A certification indicating that the recycled fuel oil does not contain detectable PCBs (< 2 ppm).

Reporting [15A NCAC 02D .0605]

- f. No reporting required for the monitoring/recordkeeping requirements given in Section 2.2 B.1.d and e above.

C. All emission sources associated with the production of feed ingredients

STATE ONLY REQUIREMENT:

1. 15A NCAC 02D .0539: ODOR CONTROL OF FEED INGREDIENT MANUFACTURING PLANTS

Any device, machine, equipment, or other contrivance used to process material for the production of feed-grade proteins or feed-grade animal fats and oils, except for any portions that are engaged exclusively in the process of food for human consumption, shall be operated in compliance with the following requirements:

- a. **Control Device Requirement:** The Permittee shall not allow, cause, or permit the operation of any device, machine, equipment, or other contrivance unless all gases, vapors, and gas-entrained effluents from these processes are passed through condensers to remove all steam and other condensable materials. All noncondensable gases passing through the condensers shall be incinerated at 1200 degrees Fahrenheit for a period of not less than 0.3 seconds, or treated in an equally effective manner.
- b. **Measurement and Recording Requirements:** The Permittee processing or incinerating gases, vapors, or gas-entrained matter as required by Section 2.2 C.1. above shall install, operate, calibrate, and maintain in good working order continuous operating parameter measuring and recording devices to document equipment operation in accordance with 02D .0539. In addition, the Permittee shall follow the approved quality assurance program for all monitoring devices and systems that include:
 - i. procedures and frequencies for calibration,
 - ii. standards traceability,
 - iii. operational checks,
 - iv. maintenance schedules and procedures,
 - v. auditing schedules and procedures,
 - vi. data validation, and
 - vii. schedule for implementing the quality assurance program.
- c. **Expeller Requirement:** The Permittee shall not allow, cause, or permit the installation or operation of expeller units unless they are properly hooded and all exhaust gases are collected or ducted to odor control equipment.
- d. **Handling, Transport, and Storage Requirement:** The Permittee shall not cause or permit any raw material to be handled, transported, or stored, or to undertake the preparation of any raw material without taking reasonable precautions to prevent odors from being discharged. Such raw material is in "storage" after it has been unloaded at a facility or after it has been located at the facility for at least 24 hours. Reasonable precautions shall include the following:
 - i. storage of all raw material before or in the process of preparation, in properly enclosed and vented equipment or areas, together with the use of effective devices and methods to prevent the discharge of odor bearing gases;
 - ii. use of covered vehicles or containers of watertight construction for the handling and transporting of any raw material; and
 - iii. use of hoods and fans to enclose and vent the storage, handling, preparation, and conveying of any odorous materials together with effective devices or methods, or both, to prevent emissions of odors or odor bearing gases.

- e. Notification of Release of Excessive and Malodorous Gases or Vapors: The Permittee shall notify the regional air quality supervisor of the appropriate regional office within two business days after conditions are encountered that cause or may cause release of excessive and malodorous gases or vapors.
- f. Compliance Statement: The Permittee shall continue to operate in compliance as described in the compliance determination submitted on December 31, 1996 pursuant to 15A NCAC 02D .0539(h)(1). The Division of Air Quality may request additional information at a later date upon further review of the compliance documentation.
- g. To ensure compliance with 15A NCAC 02D .0539, the Permittee shall:
 - i. Wash raw material truck trailers interiors after unloading and before they are moved to a staging or parking area;
 - ii. Daily clean up spilled or leaked materials, to include materials in the parking area as well as in other areas not controlled with odor control equipment;
 - iii. Conduct monthly odor surveys of processes and storage areas around the plant in order to minimize odors and record the results of the survey. At a minimum, the survey should include areas identified for improvement and corrective action taken;
 - iv. Wash the raw material parking area a minimum of three times per week when daily temperatures are above freezing and record the washes in a logbook; and
 - v. Maintain a negative pressure in the meat processing area. Entrance doors to the meat processing area may be opened for the entrance and exit of trucks, and the doors may remain open as long as a negative pressure is maintained.
- h. Recordkeeping: The Permittee shall record the time that reasonable precautions were taken for each raw material load relative to the maximum 24 hour storage time without taking those precautions. Each exceedence of the 24-hour storage time limit and the associated calendar date shall be recorded in a logbook that shall be made available for review by the Regional Office inspector.
- i. Reporting: The Permittee shall submit reports semi-annually by January 30 and July 30 of each calendar year relative to the storage of raw material. Each semi-annual report shall include:
 - i. Calendar dates covered in that period; and
 - ii. Exceedences of the 24-hour storage time limit.
- j. ODOR-SCRUBBER (TWO-STAGE) OPERATION AND MAINTENANCE REQUIREMENTS - Odorous emissions from the meat room air (**ID No. ES-8**), blood/grease room air (**ID No. ES-5**), and feather room air (**ID No. ES-9f**) shall be controlled by two two-stage scrubbers (**ID Nos. CD-8c and CD-11a**) both with a ZA300HS and water scrubbing medium or chlorine dioxide or equivalent and water scrubbing medium. To ensure that maximum control efficiency is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. As a minimum, the inspection and maintenance program will include inspection of spray nozzles, packing material, chemical feed system, and the cleaning/calibration of all associated instrumentation. Results of the inspections and any maintenance performed on the scrubber system shall be recorded in a logbook.
 - i. The Permittee shall ensure the proper performance of the scrubbers (**ID Nos. CD-8c and CD-11a**) by continuously monitoring and recording the oxidation reduction potential (ORP) of the recycle solution in the mix tanks of the crossflow scrubbers utilizing hourly averaging while maintaining a minimum ORP level of +100 mV. If the continuous ORP reading falls below +100 mV, then the Permittee shall record what corrective actions were taken to regain an ORP level of +100mV or higher. In addition, the Permittee shall inspect and calibrate the continuous ORP meters in accordance with the manufacturer's recommendations or as approved by DAQ to ensure proper operation.
 - ii. The Permittee shall ensure the proper performance of the scrubbers (**ID Nos. CD-8c and CD-11a**) by monitoring and recording in a logbook daily when in operation the following operational parameters:
 - (a) liquid injection pressure - (range 13 to 17 psig); and
 - (b) pH at the generator, only while the system is generating chlorine dioxide - (range 2.0 to 4.0).
- k. BIOFILTER OPERATION AND MAINTENANCE REQUIREMENTS - Odorous emissions from the meat material process (**ID No. ES-4**), press/centrifuge process (**ID No. ES-6**), feather drying process (**ID No. ES-9**) and the feather hydrolizer (**ID No. ES-9a**), shall be controlled by a biofilter (**ID No. CD-9d**). Odorous emissions from the meat room air (**ID No. ES-8**), blood/grease room air (**ID No. ES-5**), and feather room air (**ID No. ES-9f**) shall be controlled by biofilter (**ID No. CD-9d**). The biofilter shall also act as back-up control to the thermal oxidizers

if required. The Permittee shall submit written operation and maintenance procedures for the biofilter, including temperature, pH, and moisture monitoring, and biofilter bed media replacement, as well as operating procedures for the feather drying process should the biofilter go off-line. To ensure that optimum control efficiency is maintained, the Permittee shall establish an inspection and maintenance schedule/checklist based on the design engineer's recommendations. The results of this inspection and any maintenance performed on the biofilter shall be recorded in a logbook.

The Permittee shall ensure the proper performance of the biofilter by monitoring and recording in a log book weekly the following operational parameters:

- i. The biofilter shall be equipped with a device to continuously measure the gauge pressure directly upstream of the biofilter itself. The device shall be installed in an accessible location and shall be maintained by the Permittee such that it is in proper working order at all times. As a minimum, the gauge shall be monitored monthly (range = 0.3 to 10 inches w.c.),
- ii. The pH of the liquid leaving the biofilter shall be monitored monthly (range = 5.0 to 9.0), and
- iii. The moisture content of the biofilter shall be monitored monthly (range = 45 to 80 percent by weight).

- l. ODOR-SCRUBBER (VENTURI) OPERATION AND MAINTENANCE REQUIREMENTS - Odorous emissions from the feather drying process (**ID No. ES-9**) and the meat material process (**ID No. ES-4**) shall be controlled by a venturi scrubber (**ID No. CD-10a**). Odorous emissions from the feather hydrolizer (**ID No. ES-9a**) shall be controlled by a condenser (**ID No. CD-9e, CD-4c, CD-4d, or CD-4e**) and a venturi scrubber (**ID No. CD-10a**). The Permittee shall follow the monitoring, recordkeeping, and reporting requirements specified in Section 2.1 C. 1.c through j above.

- m. ODOR-SCRUBBER (VENTURI) OPERATION AND MAINTENANCE REQUIREMENTS - Odorous emissions from the press/centrifuge process (**ID No. ES-6**) shall be controlled by a venturi scrubber (**ID No. CD-10b**). The Permittee shall follow the monitoring, recordkeeping, and reporting requirements specified in Section 2.1 D. 1.c through j above.

- n. ODOR-SCRUBBER (PACKED BED) OPERATION AND MAINTENANCE REQUIREMENTS - Odorous emissions from the meat material process (**ID No. ES-4**), the press/centrifuge process (**ID No. ES-6**), and the feather drying process (**ID No. ES-9**) shall be controlled by the packed bed scrubber (**ID No. CD-10c**). The Permittee shall utilize a ZA300HS and water scrubbing medium or chlorine dioxide or equivalent and water scrubbing medium in the packed bed scrubber (**ID No. CD-10c**) when venting directly to the atmosphere (not to the biofilter (**ID No. CD-9d**)). The Permittee shall also record the method of operation (vent to atmosphere or vent to biofilter) upon change.

To ensure that maximum control efficiency is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the manufacturer. As a minimum, the inspection and maintenance program will include inspection of spray nozzles, packing material, chemical feed system, and the cleaning/calibration of all associated instrumentation. Results of the inspections and any maintenance performed on the scrubber system shall be recorded in a logbook.

- i. The Permittee shall ensure the proper performance of the packed bed scrubber (**ID No. CD-10c**) by continuously monitoring and recording the oxidation reduction potential (ORP) of the recycle solution in the mix tank of the packed bed scrubber utilizing hourly averaging while maintaining a minimum ORP setpoint of +200 mV. If the continuous ORP reading falls below +200 mV, then the Permittee shall record what corrective actions were taken to regain an ORP level of +200mV or higher. In addition, the Permittee shall inspect and calibrate the continuous ORP meters in accordance with the manufacturer's recommendations or as approved by DAQ to ensure proper operation.
- ii. The Permittee shall ensure the proper performance of the packed bed scrubber (**ID No. CD-10c**) by monitoring and recording in a logbook daily when in operation the following operational parameters:
 - (a) liquid injection pressure - (minimum of 15 psig); and
 - (b) pH at the generator, only while the system is generating chlorine dioxide - (range 2.0 to 4.0).
- o. BOILER/THERMAL OXIDIZER OPERATION AND MAINTENANCE REQUIREMENTS - Odorous emissions from the meat material process (**ID No. ES-4**), the press/centrifuge process (**ID No. ES-6**), and the feather drying process (**ID No. ES-9**) shall be controlled by the thermal oxidizers (**ID Nos. ES-1, ES-2, ES-3 and ES-15**), which will act as the primary control device for all noncondensable vapors from the above sources. The thermal oxidizers (**ID Nos. ES-1, ES-2, ES-3 and ES-15**) shall not be used as control devices for odorous emissions if the boilers are being operated in a low fire condition.
- i. Each boiler that is to be used as a thermal oxidizer (**ID Nos. ES-1, ES-2, ES-3 and ES-15**) shall be equipped with a device to continuously measure and record the amount of fuel flow into the boiler. The Permittee shall

record daily the date, time, fuel flow rate into each applicable boiler, while these boilers are being used as a control device.

- ii. The Permittee shall monitor operation of the boilers as thermal oxidizers (**ID Nos. ES-1, ES-2, ES-3 and ES-15**) via an automated damper system that directs the odors to the boilers while in operation. The automated damper system shall have an indicator of baffle/damper position depending on firing rate that shall be recorded. In addition, the dampers shall be checked and logged weekly for proper operation.

2.3 Other Applicable Requirements

STATE-ONLY REQUIREMENT:

A. PERMIT REOPENING

The state-only portion of the permit shall be reopened following issuance of this permit to evaluate the effectiveness of additional controls and/or limitations that may be implemented to significantly reduce the odorous emissions.

- B. The Permittee shall collect one representative sample of saleable fat oil during each calendar year that this fuel is fired in any boiler. Each representative sample shall be analyzed for density and Btu value and this analysis will be reported by January 30 annually.

SECTION 3 - GENERAL CONDITIONS (version 5.3, 08/21/2018)

This section describes terms and conditions applicable to this Title V facility.

A. General Provisions [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. Permit Availability [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. Severability Clause [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. Submissions [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional

Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NO_x budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application;
 - b. changes that modify equipment or processes; or
 - c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;

- iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
- 3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
- 4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A. Reporting Requirements for Excess Emissions and Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

- 1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
- 2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

- 3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B. Other Requirements under 15A NCAC 02D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. Emergency Provisions [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. Permit Renewal [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. Need to Halt or Reduce Activity Not a Defense [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. Duty to Provide Information (submittal of information) [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY**

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test

shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.

4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound